

## ASSIGNMET 2 (07-06-2023)

### 1. Unique Sort problem – Implement this in 5 different ways.

Take a string as **input that accepts a comma separated sequence of words as input** and prints the unique words in sorted form (alphanumerically).

\*Input\*: orange, white, red, cyan, green, magenta, cyan, pink, white

\*Output\*: cyan, green, magenta, orange, pink, red, white

### 2. SpaceTo Hyphen problem

Take a string as input, and replaces spaces " " with hyphens "-", and returns a string.

"This program converts spaces into hyphen" becomes

"This-program-converts-spaces-into-hyphen"

### 3. Python Program:

```
'''
```

```
Create a list with name statelist with five elements
```

```
statelist = ["Delhi", "Telanaga", "Goa", "AP", "Kerala"]
```

```
Write a Python program that extract first and last characters of each item ,  
print it in desired format
```

```
Output : dItAgAaPkA
```

```
'''
```

### 4. Python Program:

```
'''
```

```
statelist = ["Delhi", "Bihar", "Goa", "Gujarat", "Assam"]
```

```
Write a Python program that extract middle character of each item and print  
the character if it is vowel.
```

```
output: AO
```

```
'''
```

### 5. Python Program

```
'''
```

```
statelist = ["Delhi", "Bihar", "UP", "Goa", "Gujarat", "Assam", "AP"]
```

```
Write a Python program that extract second character of each item and print  
that character if it is vowel in required format
```

```
Desired output: UOIE (sort the output string in descending order)
```

```
'''
```

### 6. Python Program

```
'''
```

```
statelist = ["Delhi", "Bihar", "UP", "Goa", "Gujarat", "Assam", "AP"]
```

```
Write a Python program that extract last second character of each item and  
print that character if it is vowel in required format
```

```
Desired output: AAAOUA( the reverse of extracted string )
```

```
'''
```

7. Write program using filter and without filter.

...

Write a python program that generates desired output i.e. from countries list filter out the countries with names that don't contain the string "and."

Input : Countries=['Finland','Germany','Sweden','Ireland','Turkey']

Output : ['Finland', 'Ireland']

...

8. Explore about reduce – higher order function and implement.

Write a python program that reduce the given list into single item

Input: [25, 12, 33, 12, 8, 10] -- 100

9. Write a python program that read cost from file input() and create userdefined exception InvalidProductBillException , raise exception if cost<0 print message – Bill cannot be negative

**Input : 300 output : You need to pay amount 300**

**Input: - 100 output : Bill cannot be negative**

10. Write a Python function to count the number of digits in a given number and return result into a file countdigit.txt
11. Write a Python program that reads a number from input() , calculate sum of n- natural number and write result into a file sumresult.txt
12. Write a python program that reads given list and convert list elements into Capitalize format and return the result into target file named listupper.txt(use higher order functions if possible)
- input : [ramu,laxman,sita,john] output : [Ramu , Laxman, Sita ,John]
13. Write a python program that read input string from file stringinput.txt .Find the reverse of that string and write result into another file reversestr.txt
14. Write a python program that generate desired output i.e. use the filter () function on a sequence of countries to filter out the countries with names that don't contain the string "and."
- Input : Countries=["Finland","Germany","Sweden","Ireland","Turkey"]
- Output : ["Finland", "Ireland"]
15. Write a python programs that extract three numbers from file input.txt and find largest of three numbers and return output into file largest.txt